



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 813 632-5246

U/R

D5799-5

Job Sheet 207529



**POSITIVE
RECALL**

Part No: D5799-5

Job Qty: 4 pcs

Part Name: Long Handle



Part Weight: 0 lbs

Status: New

Job Created: 2/27/20

Job Tracking No:

Due Date: 3/27/20

Created By: Jennifer Renwick

Type: Stock

Description:

Note: URF 2020-525 DWG 5799 REV.A IPP REV:A NEW ISSUE 20.01.15 JV VERF:DD

Ship Via:

POSITIVE RECALL

EFFECTIVE _____ **AUTH** _____

RELEASED _____ **DATE** _____

Priority: Medium

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Run Hrs Hrs	Workcenter/Supplier		Sign-off
						Workcenter / Supplier	Lead Time	
100	Large Fab - Welded Assy-1	4 pcs	3/27/20	0 00 0 16		Large Fab - 1		
						Large Fab - 10		
						Large Fab - 2		
						Large Fab - 3		
						Large Fab - 4		
						Large Fab - 5		
						Large Fab - 6		
						Large Fab - 7		
						Large Fab - 8		
						Large Fab - 9		
						Large Fab - 11 (Various)		MFL
						Large Fab - 12		
110	QC 5	4 pcs	3/27/20	0 00 0 00		QC 5 - 10		
						QC 5 - 12		
						QC 5 - 17		
						QC 5 - 18		
						QC 5 - 19		
						QC 5 - 22		
						QC 5 - 24		
						QC 5 - 3		
						QC 5 - 43		
						QC 5 - 49		
						QC 5 - 51		
						QC 5 - 58		
						QC 5 - 68		
						QC 5 - 9		
						QC 5 - 50		
						QC 5 - 30		
						QC 5 - 40		
						QC 5 - 61		
						QC 5 - 81		



Container No: S262209



Part: D5799-5

Job No: 207529

Serial No/Batch: S262209

Revision: REV.A

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL : 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 03/16/20

DAS
MAR 12 2020
40
9-89

Flex 3/6/20 7:10 AM Dart.Lajeunesse.marie

120 Packaging 3-1 - Stock - B4B 4 pcs

3/27/20

0.00 0.00

Packaging 3 - 1 - B4B

Packaging 3 - 2 - B4B

Packaging 3 - 3 - B4B

Packaging 3 - 4 - B4B

Packaging 3 - 5 - B4B

Packaging 3 - 6 - B4B

Packaging 3 - 7 - B4B

Packaging 3 - 8 - B4B

Packaging 3 - 9 - B4B

Packaging 3 - 10 - B4B

Packaging 3 - 11 - B4B

Packaging 3 - 12 - B4B

Packaging 3 - 13 - B4B

Packaging 3 - 14 - B4B

Packaging 3 - 15 - B4B

Packaging 3 - 16 - B4B

Packaging 3 - 17 - B4B

Packaging 3 - 18 - B4B

Packaging 3 - 19 - B4B

Packaging 3 - 20 - B4B

Packaging 3 - 21 - B4B

Packaging 3 - 22 - B4B

Packaging 3 - 23 - B4B

Packaging 3 - 24 - B4B

Packaging 3 - 25 - B4B

Packaging 3 - 26 - B4B

Packaging 3 - 27 - B4B

Packaging 3 - 28 - B4B

Packaging 3 - 29 - B4B

Packaging 3 - 30 - B4B

Packaging 3 - 31 - B4B

Packaging 3 - 32 - B4B

Packaging 3 - 33 - B4B

Packaging 3 - 34 - B4B

Packaging 3 - 35 - B4B

Packaging 3 - 36 - B4B

Packaging 3 - 37 - B4B

130 QC 21 - SA

4 pcs

3/27/20

0.00 0.00

QC 21 - SA - 21

QC 21 - SA - 70

QC 21 - SA - 53

MAR 12 2020

Part Op 100 - 1- Cut to length 58.83" as per D5799 dwg 2- Debur

Descriptions: 110 - QC5- Inspect part completeness to step on W/O

120 - Identify as per dwg & Stock Location:

130 - QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304TR1.000W.065	304 Round Tube 1.00 X .065W	19.6500 ft (4.9125 ea)	100-Large Fab - Welded Assy-1	M137091-91

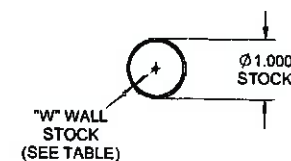
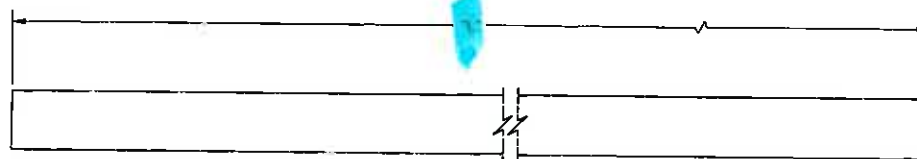
Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Large Fab - Welded Assy-1	M304TR1.000W.065	20	0	0

Part Specifications

Specifications could not be found.

P/N	DESCRIPTION	"L"	"W"	WEIGHT (lbs)
D5799-1	SHORT HANDLE	21.33	0.035	0.65
D5799-3	MEDIUM HANDLE	40.33	0.065	2.20
D5799-5	LONG HANDLE	59.33	0.095	7.21



D5799-Y HANDLE
(DERIVED FROM AERO DESIGN P/N 36277-01)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 207529 MWS
20/03/05

UNDER REVIEW
URF 2020-525 20.02.20 (NO)

- NOTES:
- 1) MATERIAL: 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING, 1.00 OD X "W" WALL (SEE TABLE)
PER ASTM A213 OR ASME SA213 OR ASTM A269
REF DART SPEC M304TR
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: SEE TABLE

RELEASED
2020 FEB 19

APPROVED

DESIGN	ZF	DART AEROSPACE LTD	
DRAWN	ZF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	KPT	DRAWING NO.	REV. A
MFG. APPR.	DD	D5799	SHEET 2 OF 4
APPROVED	NO	TITLE	SCALE
DE APPR.	CP	HANDLE	NTS
DATE	20.01.10	<small>COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR REPRODUCTION OR COMMUNICATION TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

Purchase Order Receipt Listing

Page 1 of 2

Monday, March 20, 2017 10:05:51 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO35541 Receipt Dates from 3/17/2017 to 3/17/2017 All Line Item Types

All Item ID/GL/WOs All Rec. Employees All Currencies

Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M / Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID \ Vendor Name VU-TWM001 TW Metals											
PO35541	1		M304TR0.500W.035 f		3/17/2017	3/17/2017	60.0000		0.0000	0	\$0.00
USD	No		304 RD Tube .500 x .035W		60.0000	PLOU01			0.0000	0	
			m137086								
	2		M304TR0.500W.049 f		3/17/2017	3/17/2017	20.0000		0.0000	0	\$0.00
	No		304 RD Tube .500 x .049W		20.0000	PLOU01			0.0000	0	
			m137091								
	3		M304TR0.750W.049 f		3/17/2017	3/17/2017	80.0000		0.0000	0	\$0.00
	No		304 RD Tube .750 x .049W		80.0000	PLOU01			0.0000	0	
			m137091								
	4		M304TR1.000W.065 f		3/17/2017	3/17/2017	20.0000		0.0000	0	\$0.00
	No		304 RD Tube 1.00 x .065W		20.0000	PLOU01			0.0000	0	
			m137091								
	5		M4130N10.750W.049		3/17/2017	3/17/2017	23.9170		0.0000	0	\$0.00
	No		4130 RD Tube .750 x .049W		20.0000	PLOU01			0.0000	0	
			m137091								
	6		M6061T610.500W.05 f		3/17/2017	3/17/2017	120.0000		0.0000	0	\$0.00
	No		6061-T6 RD Tube .500 x.058W		120.0000	PLOU01			0.0000	0	
			m137091								
	7		M6061T6T2.00W0.12 f		3/17/2017	3/17/2017	24.0000		0.0000	0	\$0.00
	No		6061T6 RD TUBE 2.00 X.125W		20.0000	PLOU01			0.0000	0	
			m137091								



Official High-Performance Metals Group



Packing Slip

ORDER NO.: 60627376 FROM: CRAN PAGE 1

CUST NUMBER: 1203820 NET WGT: 87.950 REQ. DATE: 03/17/17 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKSBURY ON HAWKSBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 03/13/17
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: F035541 RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION WIDTH LENGTH
0001 36506 SMLS CD 304/L A269 1/2 OD X .049 WA 20' ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	20.000 FT	20.000 FT	20.000 FT	4.718

PCS 1

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
FO:49336439 HT:YX1506712 PC: 1 CUSTOMER QTY: 20.000 UOM FT
MLT:CHINA MFG:CHINA SLB/CL:12-19

0002 36560 SMLS CD 304/L A269 3/4 OD X .049 WA 20' CL

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	80.000 FT	80.000 FT	80.000 FT	29.338

PCS 4

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49342471 HT:YX1501753 PC: 4 CUSTOMER QTY: 80.000 UOM FT
MLT:CHINA MFG:CHINA SLB/CL:11-63

0003 37076 SMLS CD 304/L A269 1 X .065 WA 20' CL

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT
	20.000 FT	20.000 FT	20.000 FT	12.982

PCS 1

** 1 TEST REPORTS REQUIRED **
** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49354086 HT:YX1606544 PC: 1 CUSTOMER QTY: 20.000 UOM FT
MLT:CHINA MFG:CHINA SLB/CL:10-24

807-03-20

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: H304TR1,000,000,005

PO / BATCH NO: 35541 / H157091

DATE: 17-03-21

MATERIAL CERT REC'D: YES

THICKNESS ORDERED: 1.0008.065

QUANTITY RECEIVED: 1x20'

THICKNESS RECEIVED: 1.0008.065

QUANTITY INSPECTED: 1x20'

SHEET SIZE ORDERED: 0

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: 0

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/>	N	
CORROSION	Y	<input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL	<input checked="" type="checkbox"/>	N	
CORRECT THICKNESS	<input checked="" type="checkbox"/>	N	
PHOTO REQUIRED	Y	<input checked="" type="checkbox"/>	
CORRECT MATERIAL	<input checked="" type="checkbox"/>	N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/>	N	
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/>	N	<u>H. 7x1606699</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/>	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>38</u>	SIGNED OFF BY: _____		
DATE: <u>MAR 21 2021</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

PUFA™

Producer of Premium Stainless Steel Seamless Tubes

MILL TEST REPORT

Purchaser.: TW METALS-Cranbury				Certificate No.: 2016-12-103					
Contract No.: TWMP.O.No.: M49354086				Date of Issue.: 2016.12.17					
Commodity: Stainless Steel Seamless Tubes				Specifications: ASTM A213-15c/ASME SA213-15/ASTM A269-15a EAW					
Process: Cold Drawn				Delivery Condition: OD Polished to 240 Grit					
Steel Grade	Heat Number	Lot Number	Dimensions	Quantity					
				Pieces	Feet				
TP304/TP304L	YX1606-644	10-24	1"x0.065"x20'	200	4,000				
Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.023	1.28	0.031	0.002	0.33	18.21	8.05	-	-
Product Analysis	0.021	1.26	0.028	0.008	0.32	18.40	8.49	-	-
Mechanical Properties									
Test Item	Elongation (% in 2")	Tensile Strength (PSI)			Yield Strength (PSI)				
		Rm			Rp / 0.2%				
Requirements	≥35	≥75,000			≥30,000				
Test Results	63/64	94,000/95,000			39,000/40,000				
Test Item	Reduction of Area Z (%)	Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.T. Test		
Requirements	-	HRB≤80	-	22%	≤0.09	-	-		
Test Results	-	76/78	-	Passed	Passed	-	OK		
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection				
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance			
Test Results	Passed	-	-	OK	OK	OK			

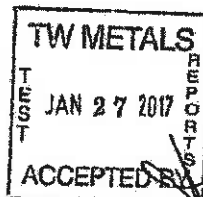
ISO 9001:2008 Certified by CAS 117 16 QU 0053-06 ROS

PED Certified by SZUTEST 2195-PED-1526002

Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
- (2) All tubes tested per ASTM A1016-14
- (3) Materials is NACE MR0103-2007 compliant (per Section 2.5)
- (4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)
- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

**CANNOT CERTIFY COMPLIANCE
FAR BAA / DFARS BAA / FAR TAA**



By:



Jones Shi

James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Jiangsu Pufa Stainless Steel Tube Co., Ltd.

No. 99, Xuean Middle Road, Dongchen Town, Rugao City, Jiangsu Province, P.R.China

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/>	DEPARTMENT/PROCESS <div style="display: flex; justify-content: space-between;"> <div> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Large Fab <input type="checkbox"/> </div> <div> Cross tube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> </div> <div> Eng. (Non-AW) <input type="checkbox"/> Prod. Eng. Coord. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> </div> <div> Engineering <input type="checkbox"/> Water Jet <input type="checkbox"/> Supplier <input type="checkbox"/> Quality <input type="checkbox"/> </div> </div>			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause <div style="display: flex; flex-direction: column; align-items: flex-start;"> <div>Operator <input type="checkbox"/></div> <div>Manufacturing Process <input type="checkbox"/></div> <div>Equip/Tooling <input type="checkbox"/></div> <div>Handling/Presservation <input type="checkbox"/></div> <div>Material <input type="checkbox"/></div> <div>Product Improvement <input type="checkbox"/></div> <div>Process Improvement <input type="checkbox"/></div> <div>Human Factors <input type="checkbox"/></div> </div>		FAULT CATEGORY <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Bending <input type="checkbox"/> Crushing <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Mislabeled </div> <div style="width: 50%;"> <input type="checkbox"/> Contamination <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Incomplete/Unclear Instructions <input type="checkbox"/> Drill Holes <input type="checkbox"/> Fit/Function </div> <div style="width: 50%;"> <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain Direction <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Off-set/Set-up </div> <div style="width: 50%;"> <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Outside Tolerance <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Misread </div> </div>			
Other/Details:					